Curriculum Vitae

Jayce R. Getz

Department of Mathematics
Duke University
Durham, NC 27708
jgetz@math.duke.edu

Phone: 919–660–6973
Fax : 919–660–2821
225 Physics
https://sites.duke.edu/jgetz/

Citizenship USA

Education

PhD, Mathematics, University of Wisconsin at Madison — August 2007
(Advisor: Ken Ono)

AB, Mathematics, Harvard University — May 2004
(with High Honors)

Professional Positions

Professor — 2025–present
Department of Mathematics, Duke University

Associate Professor (with tenure) — 2019–2025
Department of Mathematics, Duke University

Assistant Professor — 2012–2019
Department of Mathematics, Duke University

Assistant Professor — 2010–2012
Department of Mathematics and Statistics, McGill University

Veblen Research Instructor — 2007–2010
Department of Mathematics, Princeton University and IAS

Research Interests

Number theory
Automorphic representation theory
Related topics in harmonic analysis and algebraic geometry

Publications

(1) (with A. G. Terradillos, F. Hosseinijafari, B. Hu, S. Lee, A. Slipper, M.-H. Tomé, H-Y. Yao, and A. Zhao) *Modulation groups*, preprint (arXiv:2510.23932).

(2) (with H. Hahn and H-Y. Yao) *Triple product L-functions and the Ramanujan conjecture*, submitted for publication (arXiv:2509.14381).

(3) (with P. Gu, C-H. Hsu, and S. Leslie) *Triple product L-functions and the fiber bundle method*, submitted for publication (arXiv:2503.21648).

(4) (with N. Arala, J. Hou, C-H. Hsu, H. Li, and V. Y. Wang) *A nonabelian circle method*, submitted for publication (arXiv:2407.11804).

(5) (with C-H. Hsu) *The Fourier transform for triples of quadratic spaces*, accepted for publication in Annales de' l'institute Fourier.

(6) *Summation formulae for quadrics*, Sel. Math. New Ser., Vol. 31, article number 41, (2025).

(7) (with Y. Choie) *Schubert Eisenstein series and Poisson summation for Schubert varieties*, Amer. J. Math., Vol. 147, No. 3, (2025) 597-653.

(8) (with C-H. Hsu and S. Leslie) *Harmonic analysis on certain spherical varieties*, J. Eur. Math. Soc., Vol. 27, No. 2, (2025) 433–541.

(9) (with H. Hahn) **An Introduction to Automorphic Representations With A View Toward Trace Formulae**, Graduate Texts in Mathematics, Vol 300, Springer, 2024.

(10) (with B. Liu) *A refined Poisson summation formula for certain Braverman-Kazhdan spaces*, Sci. China Math, (2020).

(11) *A summation formula for the Rankin-Selberg monoid and a nonabelian trace formula*, Amer. J. Math, Vol. 142, No. 5 (2020), 1371–1407.

(12) (with B. Liu) *A summation formula for triples of quadratic spaces*, Adv. Math., Vol. 347, (2019) 150–191.

(13) *Secondary terms in asymptotics for the number of zeros of quadratic forms over number fields*, J. London Math. Soc., Vol. 98, No. 2 (2018), 275–305.

(14) *Nonabelian Fourier transforms for spherical representations*, Pacific J. Math., Vol. 294 (2018), 351–373.

(15) *Automorphic kernel functions in four variables*, Research in the Mathematical Sciences, Vol. 3, No 20. (2016), 1–26.

(16) (with H. Hahn) *A general simple relative trace formula*, Pacific J. Math., Vol. 277, No 1 (2015), 99–118.

(17) (with P. Edward Herman) *A nonabelian trace formula*, Research in the Mathematical Sciences, Vol. 2, No 14 (2015), 1-21.

(18) (with J. Klassen) *Isolating Rankin-Selberg lifts*, Proc. Amer. Math. Soc., Vol. 143, No 8 (2015), 3319–3329.

(19) (with H. Hahn) *Algebraic cycles and Tate classes on Hilbert modular varieties*, Int. J. Number Theory, Vol. 10, No 1 (2014), 161–176.

(20) (with E. Wambach) *Twisted relative trace formulae with a view towards unitary groups*, American J. Math., Vol. 136, No 1 (2014), 1–57.

(21) *An approach to non-solvable base change and descent*, J. Ramanujan Math. Soc., Vol. 27, No. 2 (2012) 143-211.

(22) (with M. Goresky) **Hilbert modular forms with coefficients in intersection homology and quadratic base change**, Progress in Mathematics, Vol 298, Birkhäuser, 2012.

(23) *Intersection numbers of Hecke cycles on Hilbert modular varieties*, American J. Math., Vol. 129, No. 6 (2007), 1623–1658.

(24) (with S. Basha, H. Nover, and E. Smith) *Systems of orthogonal polynomials arising from the modular j-function*, J. Math. Anal. Appl., Vol. 289, No. 1 (2004), 336–354.

(25) (with K. Mahlburg) *Partition identities and a theorem of Zagier*, J. Combin. Theory Seri. A, 100 (2002), 27–43.

(26) *Extension of a theorem of Kiming and Olsson for the partition function*, Ramanujan J., Vol. 5, No. 1 (2001), 47–51.

(27) *On congruence properties of the partition function*, Int. J. Math. Math. Sci., Vol. 23, No. 7 (2000), 493–496.

Awards and Honors

NSF Individual Grant, DMS-2400550 ($220,000) 2024–2027
Duke University

NSF RTG Grant, DMS-2231514 ($2,500,000) 2023–2028
Duke University (Co-PI)

Enseignant Chercheur Invité (R. Beuzart-Plessis and V. Heiermann) Jan, Jun 2022
Aix-Marseille Université (AMU), Marseille, France

Visiting Associate Professor (Y. Choie) Spring 2021
POSTECH Mathematics Institute (PMI), Pohang, South Korea

Visitor (D. Kazhdan) June 2019
Einstein Institute of Mathematics (EIM), Jerusalem, Israel

NSF Individual Grant, DMS-1901883 ($290,715) 2019–2022
Duke University

Visitor, supported by the EIM (D. Kazhdan) August 2018
Einstein Institute of Mathematics (EIM), Jerusalem, Israel

Member of the IAS, supported in part by C. Simonyi Endowment Spring 2018
Institute for Advanced Study (IAS), Princeton, NJ

Visiting Scholar, supported in part by the KIAS (Y-S Choi) August 2016
Korea Institute for Advanced Study (KIAS), Seoul, Korea

NSF Individual Grant, DMS-1405708 ($153,000) 2014–2018
Duke University

Joint Winner of the Ferran Sunyer i Balaguer Prize (€15,000) 2011
Barcelona, Spain (with Mark Goresky at IAS)

NSERC Discovery Grant ($85,000) 2010–2015
McGill University

NSF Postdoctoral Research Fellowship ($108,000) 2007–2010
Princeton University and IAS

Excellence in Mathematical Research Award ($400) 2007
Department of Mathematics, University of Wisconsin at Madison

NDSEG Fellowship ($84,000) 2004–2007
University of Wisconsin at Madison

Phi Beta Kappa member 2004
Harvard University

Dean's List, Rank I (highest ranking) 2000–2004
Harvard University

Detur Book Prize 2002
Harvard University

Intel Science Talent Search ($75,000) 2000
2nd place

Karl Menger Memorial Award 2000
International Science and Engineering Fair (administered by the AMS)

International Science and Engineering Fair 2000
2nd place overall

International Science and Engineering Fair 2000
1st place in Mathematics

Postdocs Mentored

Danielle Wang (NSF Postdoc) 2025–present
Phillip Griffiths Assistant Research Professor

Farid Hosseinijafari 2024–present
Phillip Griffiths Assistant Research Professor

Aaron Slipper 2024–present
Phillip Griffiths Assistant Research Professor of Mathematics

Winston Spencer Leslie (NSF Postdoc) 2018–2022
First tenure track job at Boston College

Michael Lipnowski 2013–2016
First tenure track job at McGill

Fritz Hoermann (McGill) 2010–2011
First tenure track job at Universität Freiburg

Graduate Students Supervised

(1) Horace Fusco — 2024–present

(2) HaoYun Yao — 2023–present

(3) Bobby (Zixuan) Zhang — 2023–present

(4) Jin Lee — 2022–present

(5) Chun-Hsien Hsu — 2019–2024
Dickson Instructor at University of Chicago

(6) Pam (Miao) Gu — 2018–2023
Postdoc at University of Michigan, Ann-Arbor

(7) Chung-Ru Lee — 2016–2022
Postdoc at National University of Singapore

(8) Thomas (Huong) Tran — 2015–2020
Postdoc at University of Kentucky

(9) Jason Polák — McGill, 2011–2016
Postdoc at University of Melbourne

(10) Maxime Turgeon, (MS) — McGill, 2011–2013
Biostatistics PhD student at McGill University

Undergraduate Students Supervised

Marie-Hélène Tome
Duke University — 2024–2025

Lucas Fagan, Craig Fiedorek, Diego Sosa-Fundora, Tony Sun, Henry Zhang
DOmath2019 program, Duke University — Summer 2019

Trung Can, Ben Nativi, Gary Zhou
DOmath2017 program, Duke University — Summer 2017

Josh Izzard
PRUV program, Duke University — May 2013–Apr 2014

Jamie Klassen
McGill University — Summer 2012

High School Students Supervised

Nolan Miranda — May 2016–Aug 2016

Angela Deng — May 2014–Dec 2015

Erik Anderson — 2010–2011

Invited Talks

(1) *Schwartz spaces for reductive monoids and modulation groups* Oct 2025
Automorphic Forms and Representation Theory
AMS Special Session, Tulane University.

(2) *On the Ramanujan conjecture and triple product L-functions* June 2025
Number Theory in the spirit of Ramanujan and Berndt, Yonsei University.

(3) *Triple product L-functions: first reduction* December 2024
Luxembourg Number Theory Day, University of Luxembourg.

(4) *The fiber bundle method applied to triple product L-functions: Application of the fiber bundle method* April 2024
Automorphic Forms and Trace Formulae
AMS Special Session, Howard University.

(5) *The Poisson summation conjecture and the fiber bundle method* March 2024
Arithmetic Quantum Field Theory Program, Harvard CMSA.

(6) *On the Poisson summation conjecture* February 2024
Geometric Methods in Representation Theory Seminar
University of North Carolina at Chapel Hill.

(7) *Automorphic kernel functions supported on base changes and nonabelian trace formulae* October 2023
Automorphic forms, their arithmetic, and their applications,
AMS Special Session, Creighton University.

(8) *Integral representations related to triple product L-functions* April 2023
Lie Theory Seminar, University of Minnesota.

(9) *Fourier analysis beyond vector spaces* April 2023
Colloquium, University of Minnesota.

(10) *Integral representations related to triple product L-functions* March 2023
Number Theory/Representation Theory Seminar, Boston College.

(11) *Integral representations related to triple product L-functions* December 2022
Number Theory Seminar, POSTECH Math Institute (Virtual).

(12) *Masterclass: Relative trace formulae* (5 lectures) Aug 2022
Mathematics Department, University of Copenhagen

(13) *The Poisson summation conjecture* Jun 2022
Sur l'équation fonctionelle des fonctions L automorphes
Course by Ngô B. C., Collège de France.

(14) *Integral representations related to triple product L-functions* Jun 2022
Seminar, Department of Mathematics, Université Aix-Marseille.

(15) *Summation formulae for quadrics* Mar 2022
Recent Developments in Automorphic Forms and Representations of p-adic Groups, AMS Special Session, Purdue University

(16) *Summation formulae for quadrics* Jan 2022
Periods, Functoriality and L-functions, CIRM, France

(17) *Poisson summation formulae for flag and Schubert varieties* Nov 2021
Colloquium, Department of Mathematics, Purdue University (Virtual)

(18) *Beyond endoscopy and boundary terms in reductive monoids with a view towards nonabelian trace formulae* Nov 2021
Basic Functions, Orbital Integrals, and Beyond Endoscopy, BIRS (Virtual)

(19) *An approach to triple product L-functions* Oct 2021
Number Theory Seminar, Rutgers University (Virtual)

(20) *The Poisson summation conjecture for generalized Schubert varieties* Sep 2021
Algebra and Number Theory Day, Johns Hopkins University

(21) *Harmonic analysis on certain spherical varieties* July 2021
Galois Representations and Automorphic Forms, MCA 2021 (Virtual)

(22) *Harmonic analysis on certain spherical varieties* May 2021
Relative Aspects of the Langlands Program, L-functions, and Beyond Endoscopy, CIRM (Virtual)

(23) *New Avenues for the Circle Method (4 talks)* May 2021
The Circle Method: Entering its Second Century, HCM (Virtual)

(24) *Harmonic analysis on certain spherical varieties* Apr 2021
Representation Theory and Number Theory Seminar, NUS (Virtual)

(25) *Harmonic analysis on certain spherical varieties* Mar 2021
Recent Developments in Automorphic Representations, AMS Session (Virtual)

(26) *A Poisson summation formula for triples of quadratic spaces* Nov 2020
Colloquium, Department of Mathematics, POSTECH (Virtual)

(27) *A Poisson summation formula for triples of quadratic spaces* Oct 2020
Trends in Arithmetic Geo. and Rep. Theory, KMS Special Session (Virtual)

(28) *Summation formulae and triple product L-functions* Oct 2020
Number Theory Seminar, POSTECH Math Institute (Virtual)

(29) *On triple product L-functions* May 2020
Joint Number Theory Seminar, Princeton and the IAS (Virtual)

(30) *On triple product L-functions* May 2020
Number Theory Seminar, UCLA (Virtual)

(31) *On triple product L-functions* Apr 2020
Number Theory and Representation Theory, University of Wisconsin (Virtual)

(32) *Summation formulae for triples of quadratic forms* Mar 2019
Hawaii Number Theory Conference, University of Hawaii at Manoa

(33) *Secondary terms for the number of solutions of quadratic forms* Jan 2019
On Counting Methods in Number Theory, Joint AMS-MAA meeting, Baltimore

(34) *On triple product L-functions* Jan 2019
On the Langlands Program: Endoscopy and Beyond, IMS-NUS, Singapore

(35) *On triple product L-functions* Dec 2018
BC-MIT number theory seminar, Boston College

(36) *Proving summation formulae for spherical varieties (3 talks)* Sep 2018
Workshop on L-functions, Langlands functoriality and Trace formula, including relative aspects, Porquerolles, France

(37) *Summation formulae for triples of quadratic forms* June 2018
Geometric Representation Theory and the Langlands Program
Joint AMS-CMS Meeting, Fudan University, China

(38) *Summation formulae and speculations on period integrals attached to triples of automorphic representations* May 2018
Number Theory Seminar, Northwestern University

(39) *Summation formulae and speculations on period integrals attached to triples of automorphic representations* Apr 2018
Number Theory Seminar, University of British Columbia, Vancouver, Canada

(40) *Summation formulae and speculations on period integrals attached to triples of automorphic representations* Mar 2018
Joint Number Theory Seminar, Princeton University and the IAS

(41) *Summation formulae and speculations on period integrals attached to triples of automorphic representations* Mar 2018
Lie Groups Seminar, Cornell University

(42) *Summation formulae and speculations on L-functions attached to triples of automorphic representations* Feb 2018
Joint Number Theory Seminar, Columbia, CUNY, NYU

(43) *New families of period integrals for general linear groups* Feb 2018
Automorphic Forms and Representation Theory Seminar, Purdue University

(44) *A summation formula for triples of quadratic spaces* Nov 2017
Group, Lie and Number Theory Seminar, University of Michigan

(45) *A summation formula for triples of quadratic spaces* Nov 2017
Algebra and Number Theory Seminar, Yale University

(46) *A summation formula for triples of quadratic spaces* Aug 2017
Automorphic Forms and Related Topics, Vietnam IASM (VIASM), Ha Long

(47) *Summation formula for the Rankin-Selberg monoid via the circle method* May 2017
Harmonic analysis and the trace formula, MFO, Oberwolfach, Germany

(48) *Summation formula for the Rankin-Selberg monoid via the circle method* May 2017
Automorphic forms and related topics, AMS Special Session, Hunter College

(49) *Summation formula for the Rankin-Selberg monoid via the circle method* Feb 2017
Automorphic Forms and Representation Theory Seminar, Purdue University

(50) *Triple product L-functions and limiting forms of trace formulae* Aug 2016
Number Theory Seminar, Korea Institute for Advanced Study (KIAS), Korea

(51) *The Langlands Functoriality Conjecture* Aug 2016
Department Colloquium, Sookmyung Women's University, Seoul, Korea

(52) *Triple product L-functions and limiting forms of trace formulae* Aug 2016
Number Theory Seminar, Yonsei University, Seoul, Korea

(53) *Triple product L-functions and limiting forms of trace formulae* Mar 2016
Number Theory and Algebraic Geometry Seminar, Boston College

(54) *Triple product L-functions and limiting forms of trace formulae* Mar 2016
Langlands Program Seminar, CUNY Graduate Center

(55) *Triple product L-functions and limiting forms of trace formulae* Mar 2016
Automorphic Forms Workshop, Wake Forest University

(56) *Four-variable automorphic kernel functions* Aug 2015
Illinois Number Theory Conference, UIUC

(57) *Remarks on a paper of Frenkel, Langlands and Ngo* May 2015
Workshop on L-functions and trace formula, Purdue University

(58) *Descent and base change with a view towards the Artin conjecture* Jan 2015
Department Colloquium, Emory University

(59) *A nonabelian trace formula* July 2014
ELEFANT workshop, Hausdorff Center, Bonn, Germany

(60) *A nonabelian trace formula* Dec 2013
Special Seminar, University of Chicago

(61) *An approach to nonsolvable base change for* GL(2) Apr 2013
Lie Theory Seminar, University of Minnesota

(62) *An approach to nonsolvable base change for* GL(2) Dec 2012
Number Theory Seminar, University of South Carolina

(63) *An approach to nonsolvable base change for* GL(2) Oct 2012
Athens and Atlanta Number Theory Day, Emory University

(64) *An approach to nonsolvable base change for* GL(2) Oct 2012
Midwest Number Theory Day, UIUC

(65) *An approach to nonsolvable base change for* GL(2) Apr 2012
Number Theory Seminar, Harvard University

(66) *Hilbert modular forms with coefficients in intersection homology* Mar 2012
SAGG, Laval University

(67) *An approach to nonsolvable base change and descent* Feb 2012
Department Colloquium, Duke University

(68) *An approach to nonsolvable base change and descent* Jan 2012
Department Colloquium, University of Maryland

(69) *An approach to nonsolvable base change and descent* Jan 2012
Department Colloquium, Johns Hopkins University

(70) *An approach to nonsolvable base change and descent* Nov 2011
Department Colloquium, Cornell University

(71) *Distinction, special cycles, and twisted relative trace fomulae* May 2011
Number Theory Seminar, University of Chicago

(72) *Twisted relative endoscopy* Mar 2011
Number Theory and Algebraic Geometry Seminar, Yale University

(73) *Relative endoscopy and arithmetic of Shimura varieties* Oct 2010
Number Theory Seminar, Kyoto University

(74) *Relative endoscopy and arithmetic geometry of Shimura varieties (3 talks)* Oct 2010
Special values of L-functions and arithmetic geometry, Miyama, Kyoto, Japan

(75) *Elliptic descent of global orbital integrals* July 2010
Canadian Number Theory Association XI, Acadia University

(76) *Twisted relative trace formulae* Oct 2009
Lie theory Seminar, Cornell University

(77) *Twisted relative trace formulae with applications to unitary groups* Feb 2009
Algebraic Geometry and Number Theory Seminar, Johns Hopkins University

(78) *Trace formulae and locally symmetric spaces* Jan 2009
Department Colloquium, Boston College

(79) *Trace formulae and locally symmetric spaces* Dec 2008
Department Colloquium, McGill University

(80) *Twisted relative trace formulae with applications to unitary groups* Dec 2008
Québec-Vermont Number Theory Seminar, McGill University

(81) *Trace formulae and locally symmetric spaces* Dec 2008
Members Seminar, Institute for Advanced Study (IAS)

(82) *Twisted relative trace formulae with applications to unitary groups* Nov 2008
Shimura Varieties and Trace Formula Seminar, IAS

(83) *Twisted relative trace formulae with applications to unitary groups* Nov 2008
Number Theory and Representation Theory Seminar, University of Toronto

(84) *Twisted relative trace formulae with applications to unitary groups* Nov 2008
Number Theory Seminar, McMaster University

(85) *Twisted relative trace formulae with applications to unitary groups* Sep 2008
Number Theory Seminar, University of Maryland

(86) *Twisted relative trace formulae with applications to unitary groups* Sep 2008
Automorphic Forms and Number Theory Seminar, University of Minnesota

(87) *Twisted relative trace formulae* Sep 2008
Colloquium, University of Minnesota

(88) *Twisted relative trace formulae with a view towards unitary groups* May 2008
Locally Symmetric Spaces, Banff International Research Station

(89) *Jacquet-Langlands transfer and distinction* Feb 2008
Number Theory Seminar, UCLA

(90) *Jacquet-Langlands transfer and distinction* Feb 2008
Number Theory Seminar, Caltech

(91) *Relative trace formulae with a view towards Shimura varieties* Feb 2008
Number Theory and Representation Theory Seminar, University of Michigan

(92) *Hilbert modular forms with coefficients in intersection homology* Nov 2007
Algebra and Number Theory Seminar, Penn State University

(93) *Hilbert modular forms with coefficients in intersection homology* Oct 2007
Algebraic Geometry Seminar, Duke University

(94) *Hilbert modular forms with coefficients in intersection homology* Sep 2007
Joint Number Theory Seminar, Princeton University and IAS

(95) *Hilbert modular forms with coefficients in intersection homology* May 2007
Algebraic Geometry Seminar, University of Chicago

(96) *Hilbert modular forms with coefficients in intersection homology* Mar 2007
Number Theory and Representation Theory Seminar, University of Toronto

(97) *Hilbert modular forms with coefficients in intersection homology* Mar 2007
Automorphic Forms Seminar, University of Minnesota

(98) *Hilbert modular forms with coefficients in intersection homology* Feb 2007
Number Theory Seminar, Boston College

(99) *Intersection homology theory of Hilbert modular varieties* Jan 2007
Mathematics Seminar, Johns Hopkins University

(100) *Hilbert modular forms with coefficients in intersection homology* Nov 2006
Automorphic Forms and Representation Theory Seminar, Purdue University

(101) *Hilbert modular forms with coefficients in intersection homology* Oct 2006
Number Theory Seminar, The Ohio State University

(102) *Hilbert modular forms with coefficients in intersection homology* July 2006
Arithmetic Geometry Seminar, Humboldt University, Germany

(103) *Hilbert modular forms with coefficients in intersection homology* Apr 2006
Computational Arithmetic Geometry, AMS Special Session, San Francisco, CA

(104) *Hilbert modular forms with coefficients in intersection homology* Apr 2006
Combinatorics, Algebra and Number Theory Seminar, Iowa State University

(105) *Hilbert modular forms with coefficients in intersection homology* Jan 2006
Arithmetic Geometry and Modular Forms, AMS Special Session, San Antonio, TX

(106) *Introduction to intersection homology* Jan 2006
Mathematics Seminar, Osaka University

(107) *Hilbert modular forms with coefficients in intersection homology* Jan 2006
Automorphic representations, L-functions, and Periods, RIMS, Kyoto, Japan

(108) *Hilbert modular forms with coefficients in intersection homology* Dec 2005
Intersection of Arithmetic Cycles and Automorphic Forms, CRM

(109) *Hilbert modular forms with coefficients in intersection homology* Nov 2005
Number Theory Seminar, Johns Hopkins University

(110) *Hilbert modular forms with coefficients in intersection homology* Nov 2005
Number Theory Seminar, Brown University

(111) *Hilbert modular forms with coefficients in intersection homology* Oct 2005
Number Theory Seminar, UCLA

(112) *Intersection numbers of Hecke cycles on Hilbert modular varieties* Oct 2005
NSF Focused Research Group workshop, University of Maryland

(113) *Intersection numbers of Hecke cycles on Hilbert modular varieties* Mar 2005
Number Theory Seminar, University of Rochester

(114) *Intersection numbers of Hecke cycles on Hilbert modular varieties* Feb 2005
Number Theory Seminar, University of Wisconsin

(115) *Classical and p-adic modular forms arising from the Borcherds exponents of other modular forms* Apr 2004
Joint Trivial Notions and Modular Seminar, Harvard University

(116) *Systems of orthogonal polynomials arising from the modular j-function* Jan 2004
Continued Fractions, AMS Special Session, Phoenix, AZ

(117) *Systems of orthogonal polynomials arising from the modular j-function* Sep 2003
Modular Curves Seminar, Harvard University

(118) *Systems of orthogonal polynomials arising from the modular j-function* July 2003
Number Theory Seminar, University of Wisconsin

(119) *A generalization of a theorem of Rankin and Swinnerton-Dyer on zeros of modular forms* July 2002
Number Theory Seminar, University of Wisconsin

(120) *Partition identities and a theorem of Zagier* Nov 2001
Modular Forms Seminar, Harvard University

(121) *Partition identities and a theorem of Zagier* Nov 2001
Math Table Seminar, Harvard University

(122) *Partition identities and a theorem of Zagier* July 2001
Number Theory Seminar, University of Wisconsin

Other Talks and Lectures

Why and how to be a mathematician with vignettes from the Langlands program — Oct 2023
Graduate Research Opportunities Workshop (GROW), Duke University

Summation formula for spherical varieties — Sep 2018
Number Theory Seminar, Duke University

An invitation to modern number theory via elliptic curves — June 2018
Summer Workshop in Math for female high school students, Duke University

An approach to nonsolvable base change for GL(2) — Feb 2013
Graduate & Faculty Seminar, Duke University

Intersection homology for Hilbert modular varieties — Apr 2011
Montreal-Toronto Meeting on Hilbert modular varieties, Fields Institute

Relative endoscopy and arithmetic of Shimura varieties — Sep 2010
Montreal-Toronto Meeting on Arithmetic of Shimura varieties, CRM

Hilbert modular forms with coefficients in intersection homology — Oct 2006
Midwest Number Theory Conference IV, UIUC

Hilbert modular forms with coefficients in intersection homology — July 2006
Recent Developments in the Arithmetic of Shimura Varieties and Arakelov Geometry, CRM, Bellaterra, Spain

Intersection numbers of Hecke cycles on Hilbert modular varieties — Nov 2005
Midwest Number Theory Conference III, University of Wisconsin

Intersection numbers of Hecke cycles on Hilbert modular varieties — Apr 2005
ArithmeTexas, Texas A&M

Intersection numbers of Hecke cycles on Hilbert modular varieties — Mar 2005
19th Annual Automorphic Forms Workshop, UTexas at Denton

Intersection numbers of Hecke cycles on Hilbert modular varieties — Feb 2005
Midwest Number Theory Conference II, UIUC

Systems of orthogonal polynomials arising from the modular j-function — Nov 2004
Additive Number Theory Conference, University of Florida

Systems of orthogonal polynomials arising from the modular j-function — Sep 2003
Big Sky Conference on Discrete Math, University of Montana

Professional Service

Founder and Organizer of the Duke Research Scholars program
Duke University — 2023–2025

Faculty Leader for DOmath2019 program
Duke University — Summer 2019

Co-Organizer of AMS session on Recent developments in Automorphic Forms
University of Hawaii, Manoa Mar 2019

Pure ARP Search Committee
Duke University Jan 2018

Faculty Leader for DOmath2017 program
Duke University Summer 2017

Member of Graduate Admission Committee
Duke University 2016–2017, 2023–2024

Co-Organizer of AIM Workshop on Automorphic Kernel Functions
American Institute of Mathematics Nov 30–Dec 4, 2015

Pure ARP Search Committee
Duke University Jan 2015

Co-Organizer of AMS Session on Automorphic Forms and Related Topics
University of North Carolina at Greensboro Nov 2014

Co-Founder and Co-Organizer of UNC-Duke Number Theory Seminar
Duke University 2012–present

Organizer of Algebraic Geometry Seminar
Duke University Fall 2012–present

Pure ARP Search Committee
Duke University Jan 2013

Member of Teaching Awards Committee
McGill University Fall 2011–Winter 2012

Member of Computing and Equipment Committee
McGill University Winter 2010

Co-Organizer of Québec-Vermont Number Theory Seminar
McGill University Fall 2010–Winter 2012

Co-Organizer of the Bellairs Workshop in Number Theory
Barbados May 2011

Co-Organizer of CRM-ISM Colloquium
McGill University Fall 2010–Winter 2011

Co-Organizer of Joint Number Theory Seminar
Princeton University and IAS Fall 2007–Fall 2009

Reviewer for NSF grant proposals

Reviewer for NSA grant proposals

Refereeing work
Advances in Mathematics
Algebra and Number Theory
American Journal of Mathematics

Annales mathématiques du Québec
Annals of Mathematics Studies
Bulletin of the London Mathematical Society
Canadian Mathematical Bulletin
Compositio Mathematica
Documenta Mathematica
Duke Mathematical Journal
Forum Mathematicum
International Journal of Number Theory
Journal of Algebra and its Applications
Journal of the European Mathematical Society
Journal of the Mathematical Society of Japan
Journal of Number Theory
Mathematische Zeitschrift
Mathematische Annalen
Pacific Journal of Mathematics
Proceedings of the American Mathematical Society
Science China Mathematics
Transactions of the American Mathematical Society

Further Activities

Arithmetic Quantum Field Theory Program
Invited visitor, Harvard CMSA — Mar 2024

The 45th KAST International Symposium: Periods of Automorphic Forms
Participant, Korean Academy of Science and Technology (Virtual) — Feb 2021

Conference on Representation Theory and Algebraic Analysis
Participant, Weizmann Institute of Science (Virtual) — May 2020

The Sixth Abel Conference: A mathematical celebration of Langlands
Invited participant, IMA, University of Minnesota, Twin City — Nov 2018

Representation Theory and Analysis in Locally Symmetric Spaces
Participant, Institute for Advanced Study — Mar 2018

Functoriality and the Trace Formula
Invited participant, American Institute of Mathematics — Dec 2017

Mod p/p-adic Langlands Programs
Participant, Korea Institute for Advanced Study (KIAS) — Aug 2016

Analysis, Spectra and Number Theory (in honor of Peter Sarnak)
Participant, Princeton University and IAS — Aug 2016

Greater Metropolitan New York Math Fair
Judge, Brooklyn Technical High School — Mar 2009

The Stable Trace Formula, Automorphic Forms, and Galois Representations
Participant, Banff International Research Station Aug 2008

Recent Developments in Number Theory: Selmer Groups, L-functions, and Galois Deformations
Participant, UCLA Mar 2008

The Tate Conjecture
Participant, American Institute of Mathematics July 2007

Automorphic Galois Representations, L-functions and Arithmetic
Participant, Columbia University June 2006

Advanced Course on Arakelov Geometry and Shimura Varieties
Participant, CRM, Barcelona, Spain Feb 2006

NSF Give a Day, Make a Difference Outreach
Invited panelist with Leon Lederman (1988 Nobel Laureate in Physics) and Ken Ono, Missoula, MT May 2004

Research Experience for Undergraduates in Number Theory
Participant, University of Wisconsin Summer 2003

CBMS–The Web of Modularity
Participant, UIUC June 2003

Math Tutor and general instructor of the After School Program
Peabody Middle School Fall 2002, Fall 2003, Spring 2004

Exchange Student in Mathematics
Budapest Semesters in Mathematics Spring 2003

International Mathematics Olympiad Awards Ceremony
Student research invited speaker, Washington, DC July 2001

NSF 50 Scientists and Engineers in the Schools Outreach
Invited panelist with Leon Lederman (1988 Nobel Laureate in Physics) and Ken Ono, Missoula, MT May 2001

Honored by Japanese American Citizens League for work memorializing the unjust internment of Japanese Americans during World War II
Missoula, MT 2000